



City of Lawton Water Treatment Plants

Medicine Park
 82 E. Lake Dr.
 P.O. Box 247
 Medicine Park, OK 73557
 Phone: (580) 529-2703

Southeast
 4596 SE 15th
 Lawton, OK 73501
 Phone: (580) 581-3532

Dear water system owner/operator:

The following results are from analytical testing conducted on the finished water for the Lawton Water Treatment Plants at both the Medicine Park and the Southeast locations. These results are contaminants detected for the 2018 calendar year. This information should be used to publish your annual Consumer Confidence or Water Quality Report (if required) to comply with EPA 40 CFR 141 and 142. If you have any questions please call (580) 529-2703.

City of Lawton Water Quality for both Medicine Park and Southeast Water Plants

Inorganic Compounds

Contaminants	Measuring Units	MCLG	MCL	Medicine Park OK1011303-01	Southeast OK1011303-02	Sampling Year	COMPLIANCE
Fluoride	ppm	4	4	0.58 Average level detected	- Fluoride not fed	2018	Yes
				Range			
				0.48 - 0.66	-		
Lead	ppb	0	AL = 15	Distribution Testing		June 2018	Yes - All Sites < AL
				90th Percentile = <5.0			
Barium	ppm	2	2	0.11	0.14	2012 MP	Yes
						2015 SE	Yes
Copper	ppm	0	AL = 1.3	Distribution Testing		June 2018	Yes - All Sites < AL
				90th Percentile = 0.185			
Arsenic	ppb	0	10	<2.0	<2.0	2012 MP	Yes
						2015 SE	Yes
Nitrate-Nitrite	ppm	10	10	0.18	0.67	2018	Yes
Sodium	ppm	No Limit		36	49.2	2018	-

Radiological Contaminants

Gross Alpha	pCi/L	0	15	< 0.518	1.7	2015	Yes
Gross Beta	pCi/L	0	50	3.54	1.59		
Radium 226 + 228	pCi/L	0	5	0.027	0.097		
Uranium	ppb	0	30	< 1.0	< 1.0		

Disinfection By-Products

Total Trihalomethanes	ppb	0	80 (LRAA)	Distribution Testing		2018	Yes
				Highest LRAA - 1616 SW Bishop			
				17.81			
				Range			
		0.00 - 27.3					
Haloacetic Acids	ppb	0	60 (LRAA)	Distribution Testing		2018	Yes
				Highest LRAA - SW Sheridan & E			
				7.72			
				Range			
		0.00 - 13.4					
Bromate	ppb	0	10 (RAA)	Highest RAA		2018	Yes
				2.54	1.8		
				Range			
				0.00 - 7.62	0.00 - 5.41		

Disinfection By-Products, cont'd.

Contaminants	Measuring Units	MCLG	MCL	Medicine Park OK1011303-01	Southeast OK1011303-02	Date	COMPLIANCE
Chlorite	ppm	0.8 (MRDLG)	1 (MRDL)	Highest Monthly Average		2018	Yes - Southeast Plant feeds Purate
				0.09			
				Range			
				0.00 - 0.183			
Chlorine Dioxide	ppm	0.8 (MRDLG)	0.8 (MRDL)	Highest Monthly Average		2018	Yes - Southeast Plant feeds Purate
				0.15			
				Range			
				0.00 - 1.12			

TOC Removal Requirements

Total Organic Carbon (TOC)	-	-	TT = Ratio must be greater than or equal to 1.0, % removal must be greater than 25	Average of monthly ratios		2018	Yes
				1.57	1.26		
				Actual %TOC Removal Average			
				39	31		

Disinfection Residual

Total Chlorine (Chloramines)	ppm	NA	4.0 (MRDL)	Average Readings		2018	Yes
				3.25	3.33		
				Range			
				0.39 - 4.71	2.1 - 4.30		

Microbiological contaminants

Coliform Bacteria	CFUs	0	Presence of Coliform bacteria in <%5 of samples	Distribution Testing		2018	Yes
				Highest Sampling month			
				September - 99			
				Month with highest % positive			
				April - 2.12%			
2 positive Coliform results in 1,174 samples							

Turbidity

Turbidity (highest single measurement)	NTU	NA	TT = > 0.349 NTU in not more than 5% of samples	Monthly lowest % <0.349 NTU		2018	Yes
				100%	100%		
				Highest single reading			
				0.12	0.14		

Semi Volatile Organic Compounds (SOCs)

The Medicine Park WTP and the Southeast WTP also tested for SOCs (Semi Volatile Organic Compounds) in 2018. I have listed these compounds and their detection level, but none were found.

Contaminants	Detection Limit (ppb)	Contaminants	Detection Limit (ppb)	Contaminants	Detection Limit (ppb)
EDB & DBCP		Glyphosphate		SOCs (Continued)	
1,2-Dibromoethane	0.023	Glyphosphate	50.0	Benzo(a)pyrene	0.213
1,2-Dibromo-3-chloropropane	0.023	Diquat		Bix(2-ethylhexyl) adipate	0.213
Pesticides, Carbamate		Diquat	4.0	Bix(2-ethylhexyl) phthalate	0.213
Carbofuran (Furadan)	5.00	Endothall		gamma-BHC (Lindane)	0.213
Oxamyl (Vydate)	5.00	Endothall	5.0	Endrin	0.213
Herbicides, Chlorinated		PCBs		Heptachlor	0.213
2,4-D	1.00	Toxaphene	0.20	Heptachlor Epoxide	0.213
Dalapon	1.00	Chlordane	0.10	Hexachlorobenzene	0.213
Dinoseb	1.00	PCBs	0.10	Hexachlorocyclopentadiene	0.213
Pentachlorophenol	1.00	Semi Volatile Organic Compounds		Methoxychlor	0.213
Picloram	1.00	Alachlor	0.21	Simazine	0.213
2,4,5-TP	1.00	Atrazine	0.21	All contaminants were below detection	

Finished Water Characteristics

Parameters	Measuring Units	MRDLG	Medicine Park OK1011303-01	Southeast OK1011303-02	Date
pH	su	-	Range		2018
			7.47 - 8.62	7.31 - 8.36	
Total Alkalinity	ppm	-	Average Readings		2018
			111	136	
			Range		
			94 - 124	115 - 167	
Total Hardness	ppm	-	Average Readings		2018
			132	205	
			Range		
			114 - 48	182 - 234	
Calcium Hardness	ppm	-	Average Readings		2018
			94	134	
			Range		
			80 - 120	102 - 184	
Phosphate <i>(Only Southeast plant feeds Zinc Orthophosphate)</i>	ppm	20	Average Readings		2018
			-	2.01	
			Range		
			-	0.71 - 3.16	

Definitions & Abbreviations Used in the Water Quality Report

EPA - US Environmental Protection Agency

MCL - Maximum Contaminant Level is the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow a margin of safety.

MRDL - Maximum Residual Disinfectant Level is the highest level of a disinfectant allowed in drinking water, based on an annual average and does not apply to individual samples. There is convincing evidence that addition of a disinfectant is necessary to control microbial contaminants. Compliance with the MRDL is calculated as a Running Annual Average (RAA).

MRDLG - Maximum Residual Disinfectant Level Goal is the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

RAA - Running Annual Average is the average of the last 12 months or last 4 quarters that the facility is in operation. Disinfectants and disinfectant by-products monitored in this way are Total Trihalomethanes, Haloacetic Acids, Bromate and Chloramines.

LRAA - Locational Running Average is the average of the last 12 months or last 4 quarters for each identified monitoring location in the distribution system. This differs from past requirements, which determined compliance by calculating the RAA of samples from all monitoring locations across the distribution system. Total Trihalomethanes and Haloacetic Acids are monitored in this way.

AL - Action Level

TT - Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water.

NTU - Nephelometric Turbidity Units (a measure of clarity)

pCi/L - picocuries per liter (a measure of radioactivity)

ppm - parts per million or milligrams per liter (mg/L)

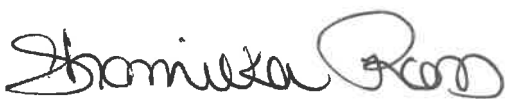
ppb - parts per billion or micrograms per liter (µg/L)

CFU - Colony Forming Units

< - less than

AL - Action Level

NA - Not applicable



Shamiela Ross

Chief Chemist

City of Lawton Water Treatment Plant Laboratory